Specifications page 3, lines 9-15:

Today, some glass contacting elements are heated by contact with glass gobs and the combustion of a mixture of combustible gases, namely, 75% by volume of MAPP gas, a mixture of methylacetylene, propadiene and propylene, which is commercially available from Petromont of Canada, and 25% by volume of propane. Better heating of glass contact surfaces is needed, however, especially in view of the tendency toward shorter runs and longer downtime while glass contacting elements are brought up to a suitable working temperature according to the prior art.

By comparison with prior art gas mixtures comprising about 75 percent by volume MAPP and about 25 percent by volume propane [,] which produces about 2,050 BTUs per cubic foot, the hydrocarbon fuel gas fuel gas mixture according to the present invention produces 2,450 BTUs per cubic feet. It is the increased heat output resulting from the combustion of the present hydrocarbon fuel gas mixture that establishes it as a premier hydrocarbon fuel used solely for [hating] heating gas contacting surfaces of glass forming equipment.

1. (amended) A method of heating glass contacting surfaces, comprising the steps of:

heating said glass contacting surfaces to a predetermined operating temperature;

said heating of said glass contacting surfaces is accomplished by combustion of a predetermined gas in a flame; and

said predetermined gas comprises a hydrocarbon fuel gas mixture which includes approximately 90 percent by volume of a mixture of [MAPP gas] methylacetylene, propadiene and propylene.

5. (amended) A method according to claim 1, wherein:

said predetermined gas comprises a hydrocarbon fuel gas mixture which includes approximately 90 percent by volume of [MAPP gas] a mixture of methylacetylene, propadiene and propylene and approximately 10 percent by volume of propane.

6. (amended) A method according to claim 2, wherein:

said predetermined gas comprises a hydrocarbon fuel gas mixture which includes approximately 90 percent by volume of [MAPP gas] a mixture of methylacetylene, propadiene and propylene and approximately 10 percent by volume of propane.

7. (amended) A method according to claim 3, wherein:

said predetermined gas comprises a hydrocarbon fuel gas mixture which includes approximately 90 percent by volume of [MAPP gas] a mixture of methylacetylene, propadiene and propylene and approximately 10 percent by volume of propane.

8. (amended) A method according to claim 4, wherein:

said predetermined gas comprises a hydrocarbon fuel gas mixture which includes approximately 90 percent by volume of [MAPP gas] a mixture of methylacetylene, propadiene and propylene and approximately 10 percent by volume of propane.

13. (amended) A method of heating glass contacting surfaces, comprising the steps of:

heating said glass contacting surfaces to a predetermined operating temperature;

said heating of said glass contacting surfaces is accomplished by combustion of a predetermined gas in a flame;

said heating of said glass contacting surfaces is started with a 100% mixture of [MAPP gas] methylacetylene, propadiene and propylene to limit carbon skeleton formation;

then there is introduced a small quantity of natural gas which has extra hydrogen atoms to give a suppressive influence for carbon formation; and

said heating of said glass contacting surfaces is maintained to avoid any chance of dirty glass contacting surfaces.

17. (amended) A method according to claim 13, wherein:

if propagation of carbon skeletons is too abundant, then said [MAPP gas] 100% mixture of methylacetylene, propadiene and propylene should be turned off for a predetermined period of time to restore said glass contacting surfaces to a clean condition.

18. (amended) A method of heating glass contacting surfaces, comprising the steps of:

heating said glass contacting surfaces to a predetermined operating temperature;

said heating of said glass contacting surfaces is accomplished by combustion of a predetermined gas in a flame;

said heating of said glass contacting surfaces is started with a 100% mixture of [MAPP gas] methylacetylene, propadiene and propylene to limit skeleton formation;

then said [MAPP gas] 100% mixture of methylacetylene, propadiene and propylene is mixed with air to produce a heat transfer system which will maintain a sustained temperature on the average of 1800° K; and

said heating of said glass contacting surfaces is maintained to avoid any chance of dirty glass contacting surfaces.

19. (amended) A method according to claim 18, wherein:

in said mixing step, said [MAPP gas] mixture of methylacetylene, propadiene and propylene is mixed with air and natural gas.

21. (amended) A method of heating glass contacting surfaces, comprising the steps of:

at the start of production, heating said glass contacting surfaces using [MAPP gas] a mixture of methylacetylene, propadiene and propylene with the addition of approximately 10% air; and

after said glass contacting surfaces have warmed-up, said glass contacting surfaces are heated with [MAPP gas only] only said mixture of methylacetylene, propadiene and propylene.

24. (amended)A method of heating glass contacting surfaces in ring and plunger assemblies, comprising the steps of:

heating said glass contacting surfaces to a predetermined operating temperature;

said heating of said glass contacting surfaces is accomplished by combustion of a predetermined gas in a flame; and

said heating of said glass contacting surfaces utilizes [MAPP gas] a mixture of methylacetylene, propadiene and propylene mixed with approximately 40% of natural gas to ensure the best heat control to eliminate the condition called glass press-up.

25. (amended) A method of heating glass contacting surfaces when large punch bowls or large pitchers are in production, comprising the steps of:

heating said glass contacting surfaces to a predetermined temperature;

said heating of said glass contacting surfaces is accomplished by combustion of a predetermined gas in a flame; and

said heating of said glass contacting surfaces is accomplished by using [MAPP gas] a mixture of methylacetylene, propadiene and propylene mixed with at least 20% natural gas.

26. (amended) A method of heating lass contacting surfaces to attain a balance of letting unsaturated hydrocarbons release heat and produce carbon thermal barriers in a uniform process, comprising the steps of:

heating said glass contacting surfaces by combustion of a predetermined gas mixture in a flame;

introducing through a main line a 100% [MAPP gas] mixture of methylacetylene, propadiene and propylene;

connecting to said main line an air line with a first venturi;

connecting to said main line a natural gas line with a second venturi; and

obtaining said predetermined gas mixture by blending said [MAPP gas] mixture of methylacetylene, propadiene and propylene with air and/or natural gas.

27. (amended) A method according to claim 26, wherein:

said heating of said glass contacting surfaces is started with a 100% mixture of [MAPP gas] methylacetylene, propadiene and propylene;

thereafter, to limit carbon skeleton formation, there is introduced a small quantity of natural gas which has extra hydrogen atoms that give a suppressive influence for carbon formation; and

maintaining this reaction to avoid any chance of dirty molds or other dirty glass contacting surfaces.

28. (amended) A method according to claim 27 wherein:

if propagation of carbon skeletons is too abundant, turning off the supply of said [MAPP gas} mixture of methylacetylene, propadiene and propylene for a predetermined period of time.

29. (amended) A method according to claim 26, wherein:

said 100% mixture of [MAPP gas] methylacetylene, propadiene and propylene is mixed with air to produce a heat transfer system which will maintain at least 1800° K at all times.

30. (amended) A hydrocarbon fuel gas mixture especially suited for heating glass contacting surfaces and/or lubricating purposes, comprising:

a hydrocarbon fuel gas mixture which includes: approximately 90% by volume of [MAPP gas] a mixture of methylacetylene, propadiene and propylene; and approximately 10% by volume of propane.